

Department of Health & Human Services
Division of Environmental and Consumer Health Services



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FORM 5
DESIGN OF PRESSURE DOSING SYSTEM

1. Configuration of Distribution Network: Type of Manifold: ☐ End ☐ Central Distribution

Laterals: Number _____ Length, ft _____ Diameter, in _____

Tot. Lateral Vol (V_1), gals _____

Hole Diameter, in _____ Hole Spacing, in _____ Number of Laterals, n _____

2. Lateral Discharge Rate: Design Pressure Head at Distal End of Laterals (H_p), ft _____

Hole Discharge Rate, Q, gpm _____ Number of Holes per Lateral, n _____

Lateral Discharge Rate, ($Q \times n$) gpm _____

3. Manifold Length, ft _____ Manifold Diameter, in _____, Total Manifold Vol. (V_m) _____

4. System Discharge Rate, gpm _____

5. Dose Volume: Daily Volume of Sewage (Q), gpd _____ Design Permeability, in/hr _____

or Percolation Rate, min/in _____ Total Volume of Delivery Pipe (V_p) _____

Internal Volume of Distribution Network (V), ($V_p + V_m + V_1$) _____ Dose Volume (V_d) _____

6a. Pump Selection: Length of Delivery Pipe, ft _____ Diameter of Delivery Pipe, in _____

Friction Loss in Delivery Pipe (H_f), ft _____ Elevation of Dosing Tank Low Water Level _____

Elevation of Lateral Invert _____ Elevation Head (H_e), ft _____

Total Operating Head (H_t), ($H_p + H_f + H_e$), ft _____ Pump Model _____

Rated Horsepower _____ Pump Discharge Rate at Total Operating Head, gpm _____

6b. Siphon Elevation: Diameter of Delivery Pipe, in _____ Length of Delivery Pipe, ft _____

Friction Loss in Delivery Pipe, H_f , ft _____ Velocity Head, H_n , ft _____

Total Operating Head (H_t), ($H_p + H_f + H_n$), ft _____ Elevation of Lateral Invert _____

Elevation of Siphon Invert _____

7. I hereby certify that the information furnished on Form 5 of this application (and attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Professional Engineer _____ Date ____/____/____